

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Please cancel original claims 1-70, and replace them with new claims 71-103 as follows:

1. - 70. (Cancelled)

71. (New) 1.A cable comprising:

- (a) at least one conductor and a plurality of layers about the at least one conductor including:
- (b) an electrically insulating layer which forms a ceramic when exposed to an elevated temperature and comprising:
  - (i) a thermoplastic polymer base composition comprising at least 50% by weight of the polymer base composition of an organic non-silicone polymer; and
  - (ii) a silicate mineral filler; and
- (c) at least one further layer which is heat transformable to a ceramic under fire conditions comprising:
  - (i) a polymer base composition comprising at least 50% by weight of organic non-silicone polymer; and
  - (ii) an inorganic filler.

72. (New) A cable according to claim 71 wherein the electrically insulating layer further comprises

a source of fluxing oxide for providing a fluxing oxide in the electrically insulating layer under fire conditions which fluxing oxide melts below 1000°C, said source of fluxing oxide comprising at least one component selected from the group consisting of fluxing oxides and fluxing oxide precursors which form a fluxing oxide at temperatures below 1000°C and wherein said source of fluxing oxide includes any components present

in said silicate mineral filler which generate fluxing oxide at temperatures below 1000°C;  
and

wherein after exposure to an elevated temperature experienced under fire conditions the residue of the electrically insulating layer remaining is a ceramic in an amount of at least 40% by weight of the total electrically insulating layer and wherein the source of fluxing oxide is present in an amount to provide the residue with fluxing oxide in an amount of from 1 to 15% by weight of said residue remaining after exposure to an elevated temperature experienced under fire conditions whereby the fluxing oxide provides binding of the silicate mineral filler to form a coherent ceramic residue at temperatures encountered under fire conditions.

73. (New) A cable according to claim 71 wherein the electrically insulating layer is substantially free of silicone polymer.

74. (New) A cable according to claim 71 wherein the electrically insulating layer and heat transformable layer are both substantially free of silicone polymer.

75. (New) A cable according to claim 71 wherein the inorganic filler of the heat transformable layer comprises an inorganic phosphate and silicate mineral.

76. (New) A cable according to claim 71 wherein the silicate mineral filler is present in said insulating layer in an amount of at least 15% by weight based on the total composition of the layer.

77. (New) A cable according to claim 71 wherein the heat transformable layer comprises from 20-40% by weight based on the total layer composition of an inorganic phosphate.

78. (New) A cable according to claim 71 wherein the heat transformable layer comprises ammonium polyphosphate in an amount of from 20 to 40% by weight.

79. (New) A cable comprising:

- (a) at least one conductor;
- (b) an electrically insulating layer extruded over the at least one conductor which layer forms a ceramic when exposed to an elevated temperature and comprising:
  - (i) a thermoplastic polymer base composition comprising at least 50% by weight of the polymer base composition of an organic non-silicone polymer; and
  - (ii) an inorganic filler;

a heat transformable layer over and in contact with the insulating layer and comprising:

- (i) a polymer base composition comprising at least 50% by weight of the polymer base composition of an organic non-silicone polymer;
- (ii) one or more materials which form a molten glass at elevated temperature

wherein the heat transformable layer is transformed into a glaze for improving strength and water resistance of the insulating layer when exposed to temperatures encountered in fire conditions.

80. (New) A cable according to claim 79 wherein the inorganic filler of the electrically insulating layer comprises

a silicate mineral filler and a source of fluxing oxide for providing a fluxing oxide in the electrically insulating layer under fire conditions which fluxing oxide melts below 1000°C, said source of fluxing oxide comprising at least one component selected from the group consisting of fluxing oxides and fluxing oxide precursors which form a fluxing oxide at temperatures below 1000°C and wherein said source of fluxing oxide includes

any components present in said silicate mineral filler which generate fluxing oxide at temperatures below 1000°C; and

wherein after exposure to an elevated temperature experienced under fire conditions the residue of the electrically insulating layer remaining is a ceramic in an amount of at least 40% by weight of the total electrically insulating layer and wherein the source of fluxing oxide is present in an amount to provide the residue with fluxing oxide in an amount of from 1 to 15% by weight of said residue remaining after exposure to an elevated temperature experienced under fire conditions whereby the fluxing oxide provides binding of the silicate mineral filler to form a coherent ceramic residue at temperatures encountered under fire conditions.

81. (New) A cable according to claim 79 wherein at least one of the insulating and heat transformable layers is substantially free of silicone polymer.

82. (New) A cable according to claim 79 wherein the inorganic filler comprises a silicate mineral filler present in said insulating layer in an amount of at least 15% by weight based on the total composition of the layer.

83. (New) A cable according to claim 79 wherein the weight ratio of glaze forming component to organic polymer component is in the range of from 0.9:1 to 1.2:1.

84. (New) A cable according to claim 79 wherein the heat transformable layer comprises from 20-40% by weight based on the total layer composition of an inorganic phosphate.

85. (New) A cable comprising:

(a) at least one conductor and a plurality of layers about the at least one conductor including:

(b) an electrically insulating layer which forms a ceramic when exposed to an

elevated temperature and comprising:

- (i) a polymer base composition comprising at least 50% by weight of the polymer base composition of an organic non-silicone polymer; and
- (ii) a silicate mineral filler; and
- (c) at least one further layer which is a heat transformable sacrificial layer on the conductor and separating the conductor from the insulating layer, said heat transformable layer comprising:
  - (i) a thermoplastic polymer comprising at least 50% by weight of non-silicone polymer; and
  - (ii) an inorganic filler.

86. (New) A cable according to claim 85 wherein the electrically insulating layer further comprises

a source of fluxing oxide for providing a fluxing oxide in the electrically insulating layer under fire conditions which fluxing oxide melts below 1000°C, said source of fluxing oxide comprising at least one component selected from the group consisting of fluxing oxides and fluxing oxide precursors which form a fluxing oxide at temperatures below 1000°C and wherein said source of fluxing oxide includes any components present in said silicate mineral filler which generate fluxing oxide at temperatures below 1000°C; and

wherein after exposure to an elevated temperature experienced under fire conditions the residue of the electrically insulating layer remaining is a ceramic in an amount of at least 40% by weight of the total electrically insulating layer and wherein the source of fluxing oxide is present in an amount to provide the residue with fluxing oxide in an amount of from 1 to 15% by weight of said residue remaining after exposure to an elevated temperature experienced under fire conditions whereby the fluxing oxide provides binding of the particles of silicate mineral filler to form a coherent ceramic residue at temperatures encountered under fire conditions.

87. (New) A cable according to claim 85 wherein the inorganic filler comprises one or more inorganic additives selected from the group consisting of metal oxides, metal hydroxides, talc and clays.

88. (New) A cable according to claim 85 wherein the inorganic filler comprises magnesium oxide.

89. (New) A cable according to claim 85 wherein the electrically insulating layer is free of silicone polymer.

90. (New) A cable according to claim 85 wherein the electrically insulating layer and heat transformable layer are free of silicone polymer.

91. (New) A cable according to claim 71 wherein the electrically insulating layer and heat transformable layer are co-extruded onto the conductor.

92. (New) A cable according to claim 71 wherein the cable is substantially free of mica.

93. (New) A cable according to claim 72 wherein the source of fluxing oxide comprises one or more selected from the group consisting of borates, metal oxides, metal hydroxides, metal carbonates and glasses.

94. (New) A fire performance article comprising:

- (a) a metal substrate and a plurality of layers about the metal substrate including:
- (b) a protective layer which forms a ceramic when exposed to an elevated temperature and comprising:

- (i) a thermoplastic polymer base composition comprising at least 50% by weight of the polymer base composition of an organic non-silicone polymer; and
  - (ii) a silicate mineral filler; and
- (c) at least one heat transformable layer which enhances the physical properties of the protective ceramic forming layer during or after exposure to an elevated temperature comprising:
  - (i) a polymer base composition comprising at least 50% by weight of organic non-silicone polymer; and
  - (ii) an inorganic filler.

95. (New) A fire performance article according to claim 94 wherein the protective layer further comprises

a source of fluxing oxide for providing a fluxing oxide in the protective layer under fire conditions which fluxing oxide melts below 1000°C, said source of fluxing oxide comprising at least one component selected from the group consisting of fluxing oxides and fluxing oxide precursors which form a fluxing oxide at temperatures below 1000°C and wherein said source of fluxing oxide includes any components present in said silicate mineral filler which generate fluxing oxide at temperatures below 1000°C; and

wherein after exposure to an elevated temperature experienced under fire conditions the residue of the protective layer remaining is a ceramic in an amount of at least 40% by weight of the total protective layer and wherein the source of fluxing oxide is present in an amount to provide the residue with fluxing oxide in an amount of from 1 to 15% by weight of said residue remaining after exposure to an elevated temperature experienced under fire conditions whereby the fluxing oxide provides binding of the particles of silicate mineral filler to form a coherent ceramic residue at temperatures encountered under fire conditions.

96. (New) A first performance article according to claim 94 wherein the protective layer is substantially free of silicone polymer.

97. (New) A fire performance article according to claim 94 wherein the protective layer and heat transformable layer are both substantially free of silicone polymer.

98. (New) A fire performance article according to claim 94 wherein the inorganic filler of the heat transformable layer comprises an inorganic phosphate and silicate mineral.

99. (New) A fire performance article according to claim 94 wherein the silicate mineral filler is present in said insulating layer in an amount of at least 15% by weight based on the total composition of the layer.

100. (New) A fire performance article according to claim 94 wherein the heat transformable layer comprises from 20-40% by weight based on the total layer composition of an inorganic phosphate.

101. (New) A fire performance article according to claim 94 wherein the heat transformable layer comprises ammonium polyphosphate in an amount of from 20 to 40% by weight.

102. (New) A fire performance article according to claim 94 wherein the inorganic filler of the heat transformable layer comprises one or more materials which form a molten glass at elevated temperature whereby the heat transformable layer is transformed onto a glaze for improving strength and water resistance of the protective layer when exposed to temperatures encountered under fire conditions.



103. (New) A fire performance article according to claim 94 wherein the heat transformable layer is a sacrificial layer separating the metal substrate from the protective layer and the inorganic filler comprises one or more selected from the group consisting of metal oxides, metal hydroxides, talc and clays.